new edition—containing numerous alterations and additions, while retaining the original form—has just been published, and it should be possessed by every lover of country rambles or teacher of earth-knowledge.

A BULKY volume, containing "Agricultural Statistics of British India for the years 1894-95 to 1898-99," has just been distributed by the Department of Revenue and Agriculture of the Government of India. The tables show (1) total average, classification of areas, irrigation, fallow land, area under crops, and stock; (2) prices of produce; (3) incidence of the land revenue on area and population; (4) varieties of tenure held direct from Government; (5) register of transfers of landed property; and (6) yields of principal crops.

THE additions to the Zoological Society's Gardens during the past week include a Green Monkey (*Cercopithecus callitrichus*, ♂) from West Africa, presented by Mr. C. A. Gilbert; two Boschboks (*Tragelaphus sylvaticus*) from South Africa, presented by Dr. A. MacCarthy Morrough; a Rufous-necked Wallaby (*Macropus ruficollis*) from New South Wales, presented by Miss Seymour; a Germain's Peacock Pheasant (*Polyplectron germaini*) from Cochin China, presented by Mr. Arthur Yates; a Common Boa (*Boa constrictor*) from South America, presented by Mr. G. R. Fairbanks; two Red-bellied Squirrels (*Sciurus variegatus*) from South America, a Yellow-fronted Amazon (*Chrysotis ochrocephala*) from Guiana, ten Roofed Terrapins (*Kachuga tectum*) from India, deposited; a Wapiti Deer (*Cervus canadensis*), two Collared Fruit Bats (*Cynonycteris collaris*), born in the Gardens; two White Ibises (*Endocimus albus*), bred in the Gardens.

OUR ASTRONOMICAL COLUMN.

EPHEMERIS FOR OBSERVATIONS OF EROS.—In the last issue of the *Astronomische Nachrichten* (Bd. 153, No. 3660), Signor E. Millosevich gives a revised ephemeris of this asteroid for the next few weeks:—

Ephemeris for 12h. Berlin Mean Time.

1900.	R.A.	Decl.
	h. m. s.	° ′ ″
Sept. 6	2 27 24·16	+35 29 53·7
7	28 28·18	35 52 13·0
8	29 30·73	36 14 36·1
9	30 31·77	36 37 2·8
10	31 31·22	36 59 33·0
11	32 29·03	37 22 6 8
12	33 25·13	37 44 43·9
13	2 34 19·43	+38 7 24·2

COMET SWIFT (1894 IV).—Mr. F. H. Seares has calculated the osculating elements, and from them computed a finding ephemeris for this comet, which may possibly have some connection with the lost comet of De Vico. As it is important, however, that the comet should again be observed before any further attempt is made to establish such connection, he hopes that all possessing the necessary optical power will prosecute the search for it (*Astronomische Nachrichten*, Bd. 153, No. 3656)

Osculating Elements.

Epoch and Osculation 1900 July 23·0 Berlin Mean Time.

$M = 317^\circ\ 16'\ 15''\cdot0$
$\pi = 348\ 56\ 56\cdot0$
$\Omega = 24\ 50\ 38\cdot8$ } 1900·0
$i = 3\ 35\ 17\cdot0$
$\varphi = 31\ 2\ 30\cdot2$
$\mu = 554''\cdot3823$

Ephemeris for Berlin Mean Midnight.

1900.	R.A.	Decl.
	h. m. s.	° ′
Sept. 9	16 27 21	−25 21·9
13	32 57	25 30·5
17	38 55	25 39·1
21	45 15	25 47·5
25	51 56	25 55·6
29	16 58 57	−26 3·1

THE NEW SPECTROGRAPHS FOR THE POTSDAM GREAT REFRACTOR.—In the *Astrophysical Journal*, vol. xi. pp. 393-399, Prof. H. C. Vogel describes the two new spectrographs which have recently been completed for the great Potsdam refractor of 80 cm. aperture.

(*a*) *Three-prism spectrograph.*—This is designed so that the combined deviations of the three prisms shall be nearly 180°, thus bringing the collimator and camera almost parallel. These are then mounted on a massive steel plate 78 cm. long, 41 cm. broad, and 7 mm. thick, which in its turn is firmly attached to the tail-piece of the telescope by an elliptical base plate 10 mm. thick, lateral flexure being guarded against by several intermediate metal ribs. The slit has only one movable jaw, and the whole can be rotated round the telescope axis, and the position angle recorded to 1′ of arc. For comparison spectra the arc light has been found most convenient, the difficulty of spectral displacement of comparison lines due to imperfect adjustment of source having been overcome by interposing a translucent diffusing screen between the light and slit. The collimator lens (Steinheil) has an aperture of 3·2 cm.; focal length, 48 cm. One of the camera objectives is a Zeiss anastigmat of 56 cm. focus; the other a triple cemented lens by Steinheil of 4·1 cm. aperture; focus, 41 cm. The prisms are of very white Jena glass, and with the Zeiss camera lens a spectrum of uniform focus from *b* to K is obtained. Delicate arrangements have been made for securing constant temperature conditions, &c. The weight of the complete spectrograph is 31 kilog.

(*b*) *Single-prism spectrograph.*—In this instrument the collimator lens is 3·5 cm. aperture, focus 53 cm.; the camera lens, 4 cm. aperture, focus 72 cm., both being triple cemented objectives by Steinheil. The prism is by Zeiss, and has a refracting angle of 60°, with faces 61 mm. long and 45 mm. high. The spectrum is uniformly sharp from D to N. The whole instrument weighs 20 kilograms.

Prof. Vogel gives the results of the application of tests instituted by Prof. W. W. Campbell for the Mills' spectrograph of the Lick Observatory, showing that the performance of both instruments is very trustworthy. Three plates are given showing the instruments in position as attached to the telescope.

STRUCTURE AND CONSTITUTION OF TWO NEW METEORITES.—Messrs. G. P. Merrill and H. N. Stokes recently communicated a paper to the Washington Academy of Sciences (*Proceedings*, vol. ii. pp. 41-68, July 1900), describing the results of their examination of two fragments of newly-fallen meteorites. One, a stony meteorite, fell on July 10, 1899, in Allegan, Michigan, U.S.A., the largest fragment weighing 62½ lbs. To the unaided eye this stone shows on the broken surface a quite even granular structure of grey colour, and, on closer examination, numerous beautifully spherulitic chondrules, averaging not more than one or two millimetres in diameter. In some cases these chondrules have pitted surfaces. More critical inspection indicates that they are composed of enstatite and olivine. Numerous brilliant metallic points of a silver-white colour indicate the presence of disseminated iron, so that the stone may be said to be made up of the chondrules, iron and dark grey silicate minerals, imbedded in a light ashy grey matrix. This Allegan stone is exceedingly friable. Microscopically, the ground mass of the stone is seen to be made up of a confused agglomerate of olivine and enstatite particles with interspersed metallic iron, iron sulphide and chromic iron. An important feature is that in no cases do the silicates occur with perfect crystallographic outlines, both olivine and enstatite being fragmental. The presence of alumina and alkalis suggested a search for felspar, but it was decided that this mineral was not present. A considerable proportion of the ground mass was found microscopically to be composed of a black glassy material. Careful chemical analysis showed that 77 per cent. of the meteorite was of non-metallic origin, the remainder being chiefly iron and nickel. The second meteorite examined is known as the Mart Iron, having been found early in 1898 near Mart, in Texas. This originally weighed 15¾ lbs., from which a slice weighing 456 grams was presented to the National Museum at Washington. The etched surface shows the iron to belong to the octahedral variety, and is of moderately coarse crystallisation. Chemical analysis showed that 98·3 per cent. of the meteorite was composed of the metals iron, nickel, copper, cobalt, the remainder being made up of schreibersite and a small quantity of troilite.

Photographs of both meteorites in their present condition are given, and numerous drawings indicating the microscopical structure.